



- (51) **International Patent Classification:**
C12Q 1/6876 (2018.01)
- (21) **International Application Number:**
PCT/SG2023/050254
- (22) **International Filing Date:**
14 April 2023 (14.04.2023)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
10202203891U 14 April 2022 (14.04.2022) SG
- (71) **Applicant: NATIONAL UNIVERSITY OF SINGAPORE** [SG/SG]; 21 Lower Kent Ridge Road, Singapore 119077 (SG).
- (72) **Inventors: CHANG, Matthew Wook**; c/o National University of Singapore, Yong Loo Lin School of Medicine, 21 Lower Kent Ridge Road, Singapore 119077 (SG). **AGGARWAL, Nikhi**; c/o National University of Singapore, Yong Loo Lin School of Medicine, 21 Lower Kent Ridge Road, Singapore 119077 (SG). **HWANG, In Young**; c/o National University of Singapore, Yong Loo Lin School of Medicine, 21 Lower Kent Ridge Road, Singapore 119077 (SG). **LING, Hua**; c/o National University of Singapore, Yong Loo Lin School of Medicine, 21 Lower Kent Ridge Road, Singapore 119077 (SG). **FOO, Jee Loon**; c/o Nation-

al University of Singapore, Yong Loo Lin School of Medicine, 21 Lower Kent Ridge Road, Singapore 119077 (SG).

- (74) **Agent: DAVIES COLLISON CAVE ASIA PTE. LTD.**; 10 Collyer Quay #07-01, Ocean Financial Centre, Singapore 049315 (SG).

(81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

- (54) **Title:** METHOD OF DETECTING A POLYNUCLEOTIDE ANALYTE

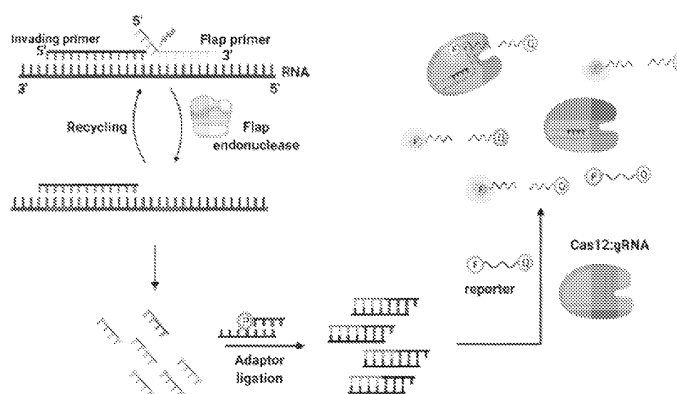


Figure 1

- (57) **Abstract:** The invention relates generally to the field of nucleic acid detection. In particular, the specification teaches a method of detecting a polynucleotide analyte in a sample. In one aspect, the method comprises the use of a cleaving agent with flap endonuclease activity and a type V CRISPR/Cas effector protein. In another aspect, the type V CRISPR/Cas effector protein is a Cast 2 protein.

[Continued on next page]

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *with sequence listing part of description (Rule 5.2(a))*

(88) Date of publication of the international search report:

23 November 2023 (23.11.2023)